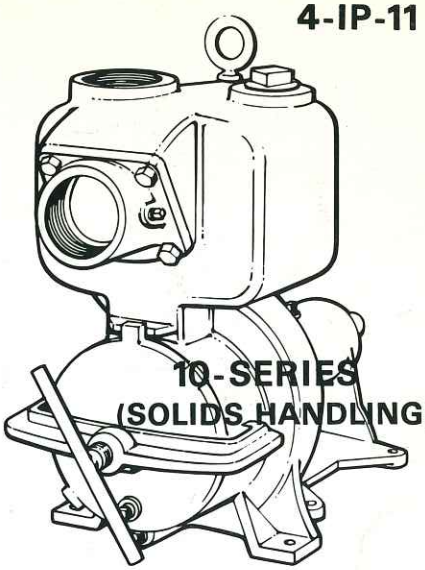
415-902
103
103
415
Digest6

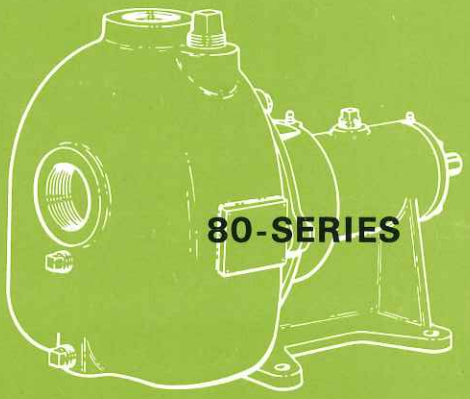
TOP SHOE FOREIGN

4-IP-11

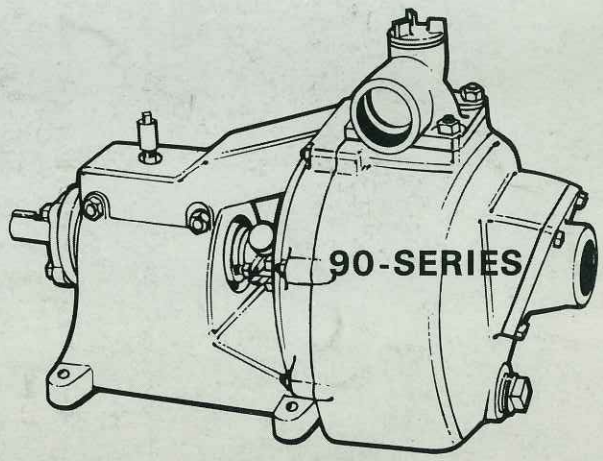


10-SERIES
(SOLIDS HANDLING)

GORMAN-RUPP SELF-PRIMING CENTRIFUGAL PUMPS FOR HANDLING CORROSIVE LIQUIDS

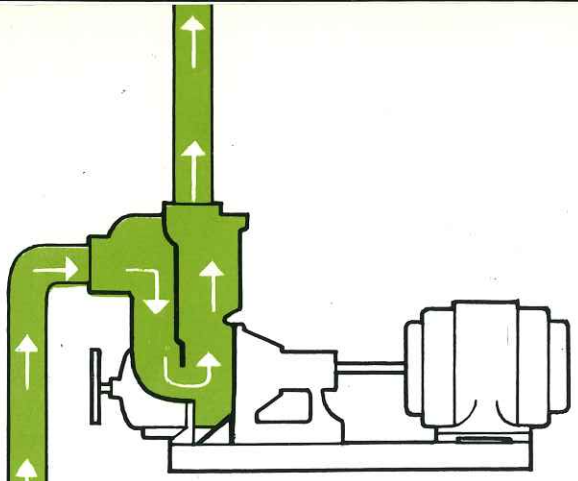


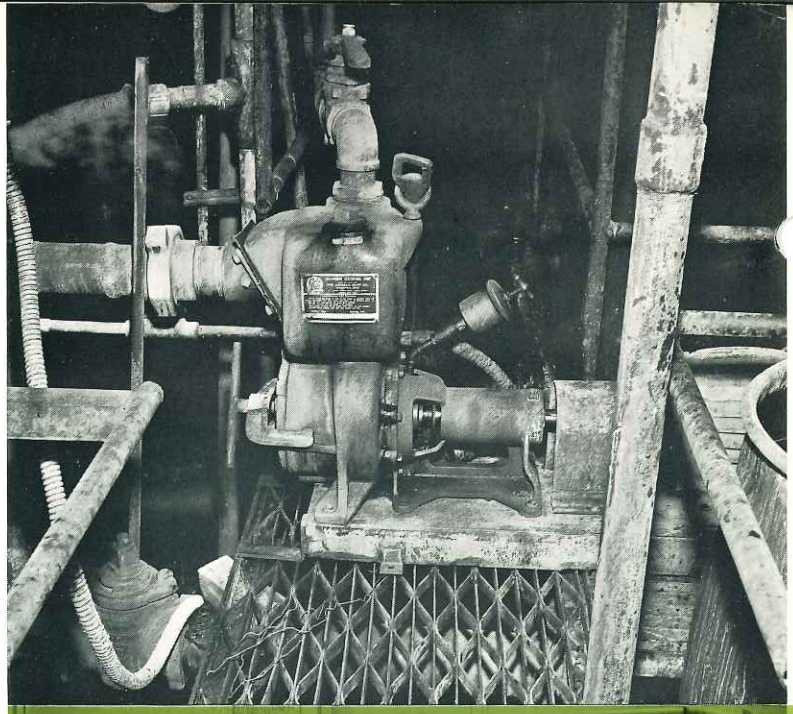
80-SERIES



90-SERIES

GORMAN-RUPP • Mansfield, Ohio • St. Thomas, Ontario





GORMAN-RUPP SELF-PRIMING CENTRIFUGAL PUMPS

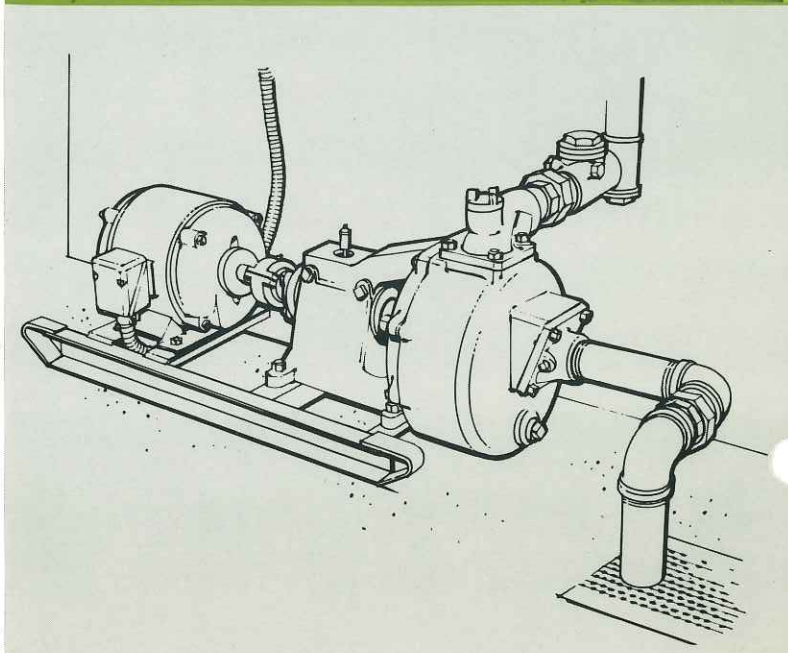
Design of Gorman-Rupp Self-Priming Centrifugal Pumps enables them to be mounted high and dry with only the suction line down in the sump. (They may also be operated under flooded suction conditions). Entire working mechanism is accessible without entering the sump or removing the pump.

VERSATILITY

For special application Gorman-Rupp offers three major designs with a total of 54 model variations in a size range from 1¼″ to 6″. These pump designs are available standard fitted, bronze fitted, all bronze, and stainless steel, with a choice of several seal variations. Power selection is also varied. All 54 models may be ordered as basic units or flexible coupled to electric motors. Some may be V-belt driven. Standard fitted iron models are available close coupled to gasoline or diesel engines. Special metals models may be flexible coupled to engines.

SPECIFICATIONS AND PERFORMANCE

This bulletin outlines the specifications and performance of each model variation. For more complete details see individual specification data sheets in Section 50 of the Gorman-Rupp catalog.



SELF-PRIMING CENTRIFUGAL SOLIDS HANDLING "10" SERIES PUMPS

Construction:
Standard Fitted **Bronze Fitted** **All Bronze**
Stainless Steel **Multiple Seal Choices**

Sizes:
2-Inch **3-Inch** **4-Inch** **6-Inch**
32 Models to Choose

Only moving parts of Gorman-Rupp Solids Handling Pumps are impeller and shaft. Parts receiving most wear, i.e., wearplate, impeller and seal are accessible and easily replaced by removing endplate. Replacement of these three parts restores pump to original operating efficiency. No expensive castings to replace. Cartridge design of pedestal allows replacement of shaft and bearings without disturbing volute or piping. These pumps have the highest standards of thrifty operation, easy use and long, trouble-free life.

SELF-PRIMING CENTRIFUGAL "80" SERIES PUMPS

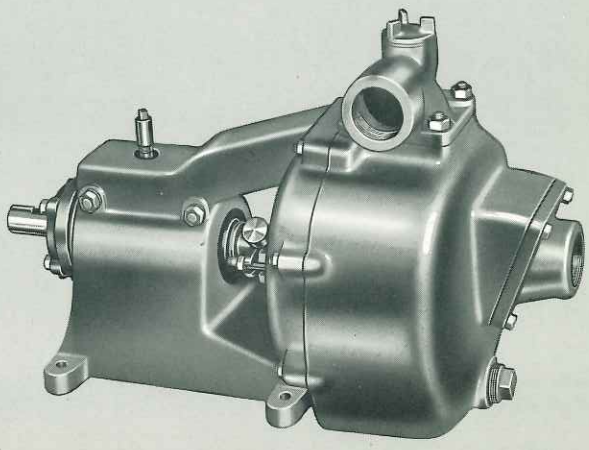
Construction:
Standard Fitted **All Bronze** **Stainless Steel**
Sizes: 1¼-inch and 1½-inch
10 Models to Choose

STRAIGHT-IN-SUCTION — The exclusive patented design of the "80" Series results in higher suction lift, increased efficiency and greater capacity. Impeller and shaft are only moving parts. No suction check valve required. Will prime and reprime without check valve.

SELF-PRIMING CENTRIFUGAL "90" SERIES PUMPS

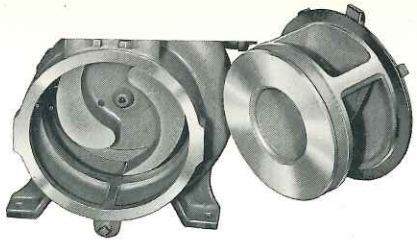
Construction:
Standard Fitted **All Bronze** **Stainless Steel**
Sizes: 2-Inch and 3-Inch
12 Models to Choose

Positive self-priming. Ideal for remote location and control. Only two moving parts—the impeller and shaft. Continuous, trouble-free operation with little or no attention. Wearing parts may be quickly replaced by maintenance men using common tools. Compact design for close quarters.

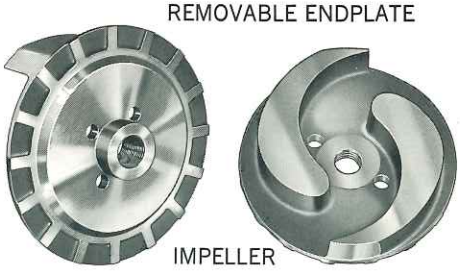


CONSTRUCTION AVAILABILITY CHART — 10 SERIES

	Standard Fitted	Bronze Fitted	All Bronze	Stainless
Construction	12B2 12B4 13A2 13A4 14A2 14A4 16A2 16A4	12B2 12B4 13A2 13A4 14A2 14A4 16A2 16A4 (Specify Bronze Fitted)	12B6 12B7 13A6 13A7 14A6 14A7 16A6 16A7	12B9 12B10 13A9 13A10 14A9 14A10 16A9 16A10
Volute	Gray Iron #30	Gray Iron #30	Bronze 78-7-15	Stainless #316
Impeller	Ductile Iron #60-45-10	Bronze 78-7-15	Bronze 78-7-15	Stainless #316
Seal Plate	Gray Iron #30	Bronze 78-7-15	Bronze 78-7-15	Stainless #316
Endplate	Gray Iron #30	Gray Iron #30	Bronze 78-7-15	Stainless #316
Wear Plate	Steel	Bronze 78-7-15	Bronze 78-7-15	Stainless #316
Shaft	High Carbon Steel	High Carbon Steel	Stainless #303	Stainless #316



REMOVABLE ENDPLATE

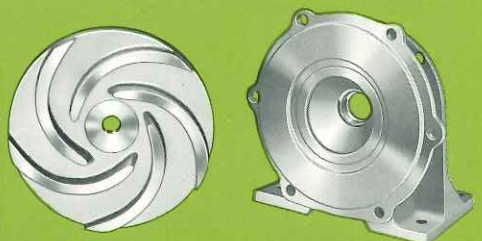


IMPELLER

Front View Rear View

CONSTRUCTION AVAILABILITY CHART — 80 SERIES

	Standard Fitted	All Bronze		Stainless
Construction	81¼A3 81½E3 81½D3 81½E4	81¼A6	81½D6 81½E6 81½E7	81½E9 81½E10
Housing	Gray Iron #30	Bronze 78-7-15	Bronze 78-7-15	Stainless Steel #316
Impeller	Bronze 78-7-15	Bronze 78-7-15	Bronze 78-7-15	Stainless Steel #316
Seal Plate	Gray Iron #30	Bronze 78-7-15	Bronze 78-7-15	Stainless Steel #316
Vane Plate	Gray Iron #30	Bronze 78-7-15	Bronze 78-7-15	Stainless Steel #316
Shaft	High Carbon Steel	Steel Chrome Plated	Stainless Steel #316	Stainless Steel #316

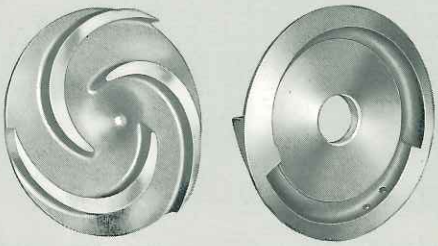


IMPELLER INTERMEDIATE

SHAFT

CONSTRUCTION AVAILABILITY CHART — 90 SERIES

	Standard Fitted	All Bronze	Stainless
Construction	92B3 92B4 93A3 93A4	92B6 92B7 93A6 93A7	92B9 92B10 93A9 93A10
Volute Scroll	Gray Iron #30	Bronze 78-7-15	Stainless Steel #316
Housing	Gray Iron #30	Bronze 78-7-15	Stainless Steel #316
Impeller	Bronze 78-7-15	Bronze 78-7-15	Stainless Steel #316
Seal Plate	Gray Iron #30	Bronze 78-7-15	Stainless Steel #316
Shaft	High Carbon Steel	Stainless Steel #316	Stainless Steel #316



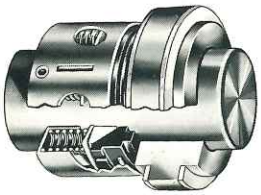
IMPELLER VOLUTE SCROLL

SHAFT

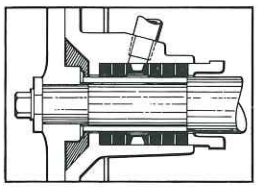
SEAL PLATE

SEAL AVAILABILITY CHART "10" SERIES

GREASE SEAL



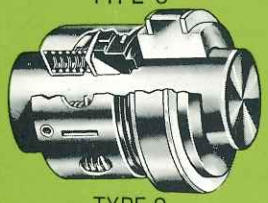
TYPE 9



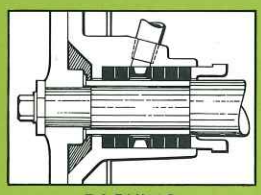
PACKING

Seal Description	Pump Sizes			
	2-inch	3-inch	4-inch	6-inch
MECHANICAL SHAFT SEAL				
Gorman-Rupp double faced, grease lubricated seal with spring loaded grease cup	12B2	13A2	14A2	16A2
Self lubricated mechanical shaft seal				
Type 9—Ceramic Stationary Seat	12B6	13A6	14A6	16A6
Carbon Rotating Face	12B9	13A9	14A9	16A9
Chemlon-Teflon Bellows				
Stainless steel spring and cage				
PACKING GLAND				
Split Gland—Bronze (85-5-5-5)	12B4	13A4	14A4	16A4
Lantern Ring—Bronze (85-5-5-5)	12B7	13A7	14A7	16A7
Packing—Garlock #234				
Split Gland—Stainless Steel #316				
Lantern Ring—Stainless Steel #316	12B10	13A10	14A10	16A10
Packing—Teflon Impregnated				

TYPE 6



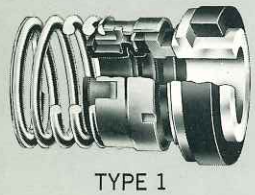
TYPE 9



PACKING

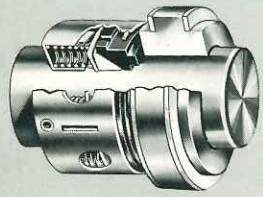
SEAL AVAILABILITY CHART "80" SERIES

Seal Description	Pump Model
SELF LUBRICATED MECHANICAL SHAFT SEAL	
Mechanical	
Type 6—Ceramic Stationary Seat	81¼A3 & 6
Carbon Rotating Face	81½D3 & 6
Stainless Steel Spring and Brass Cage	81½E3 & 6
Buna "N" Bellows and Ring	
Type 9—Ceramic Stationary Seat	81½E9
Carbon Rotating Face	
Stainless Steel Spring & Cage	
Chemlon-Teflon Bellows	
PACKING GLAND	
Split Gland—Bronze 78-7-15	81½E4
Lantern Ring—Stainless Steel #303	81½E7
Packing—Garlock #234	
Split Gland—Stainless Steel #316	81½E10
Lantern Ring—Stainless Steel #316	
Packing—Teflon Impregnated	



TYPE 1

TYPE 2



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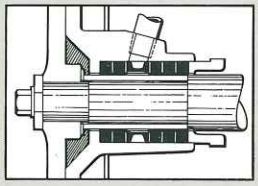
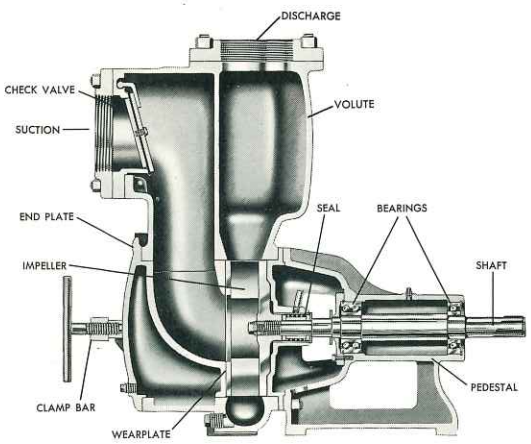


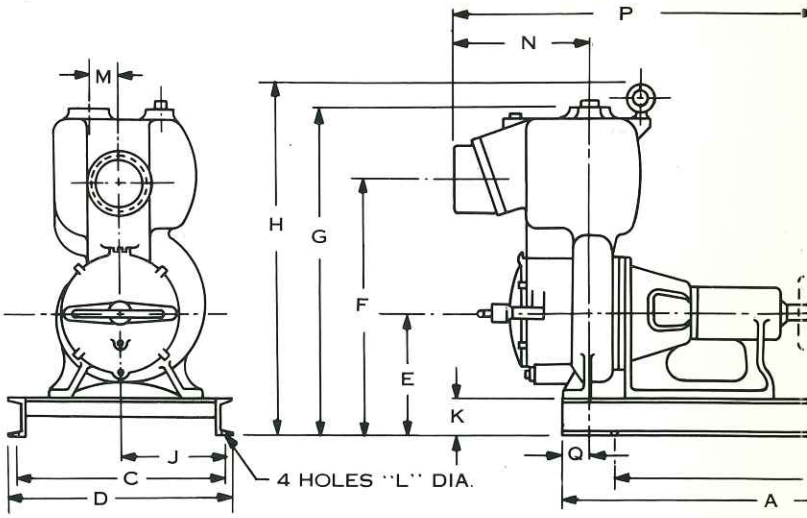
PACKING

SEAL AVAILABILITY CHART "90" SERIES

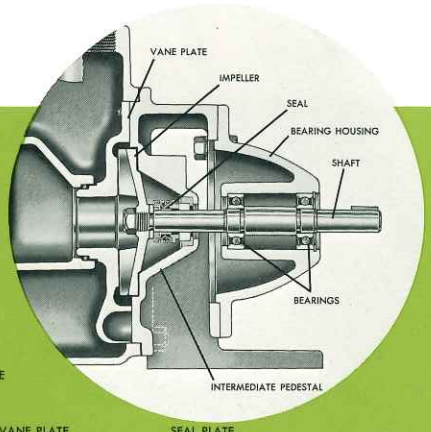
Seal Description	Pump Size and Model 2-Inch	3-Inch
SELF LUBRICATED MECHANICAL SHAFT SEAL		
Rotating Face—Carbon	92B3	
Type 1—Stationary Seat—Ni-Resist	92B6	
Bellows and Ring—Buna "N"		
Stainless Steel Spring and Brass Cage		
Rotating Face—Carbon		93A3
Type 2—Stationary Seat—Ni-Resist		93A6
Bellows and Ring—Buna "N"		
Stainless Steel Spring and Brass Cage		
Rotating Face—Carbon	92B9	93A9
Type 9—Stationary Seat—Ceramic		
Bellows—Chemlon-Teflon		
Stainless Steel Spring and Cage		
PACKING GLAND		
Outer Packing Gland—Bronze 78-7-15	92B4	93A4
Inner Packing Gland—Bronze 78-7-15	92B7	93A7
Packing Garlock #234		
Outer Packing Gland—Stainless Steel #316	92B10	93A10
Inner Packing Gland—Stainless Steel #316		
Packing—Teflon Impregnated		

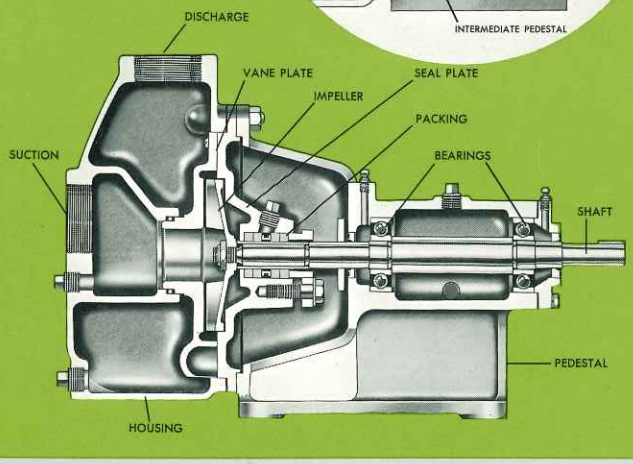
DIMENSIONS — FLEXIBLE COUPLED PUMP

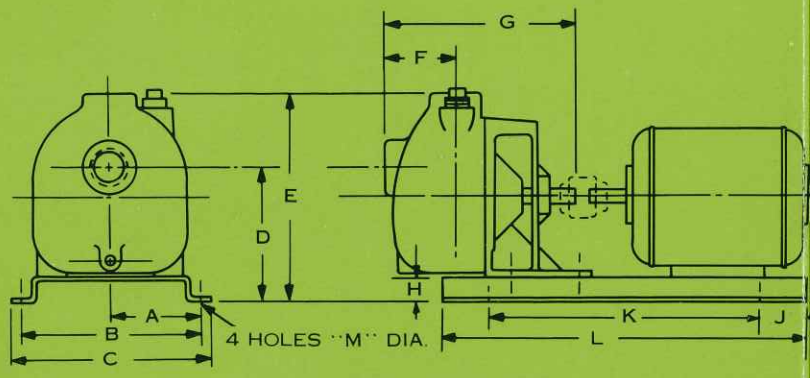




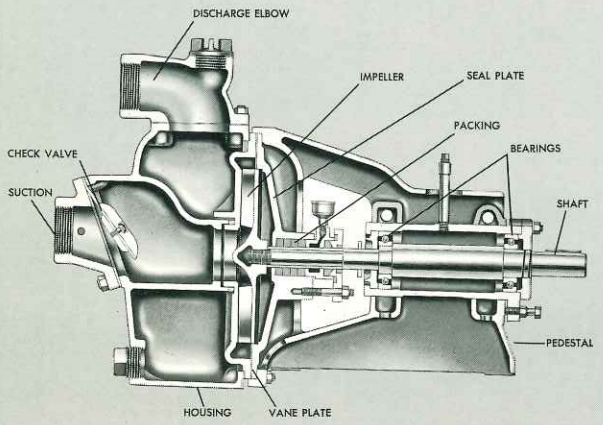
MODELS 12B, 13A & 14A

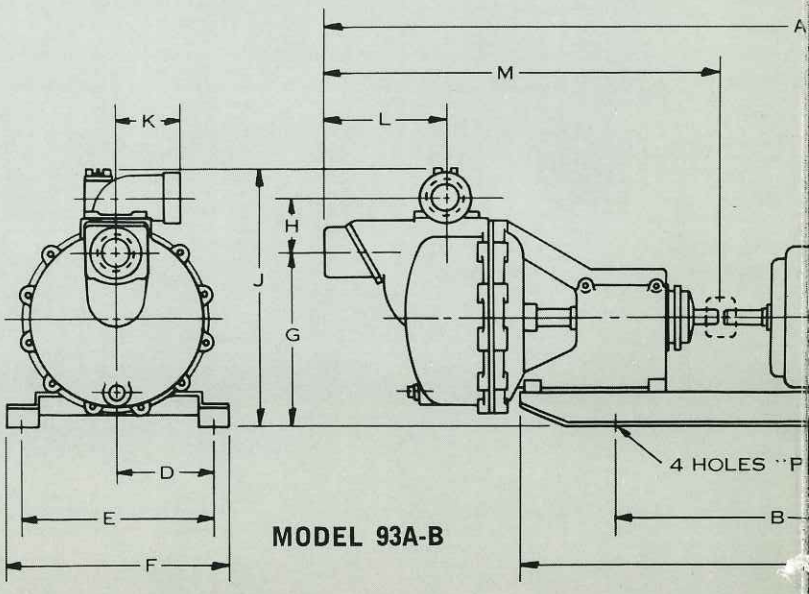




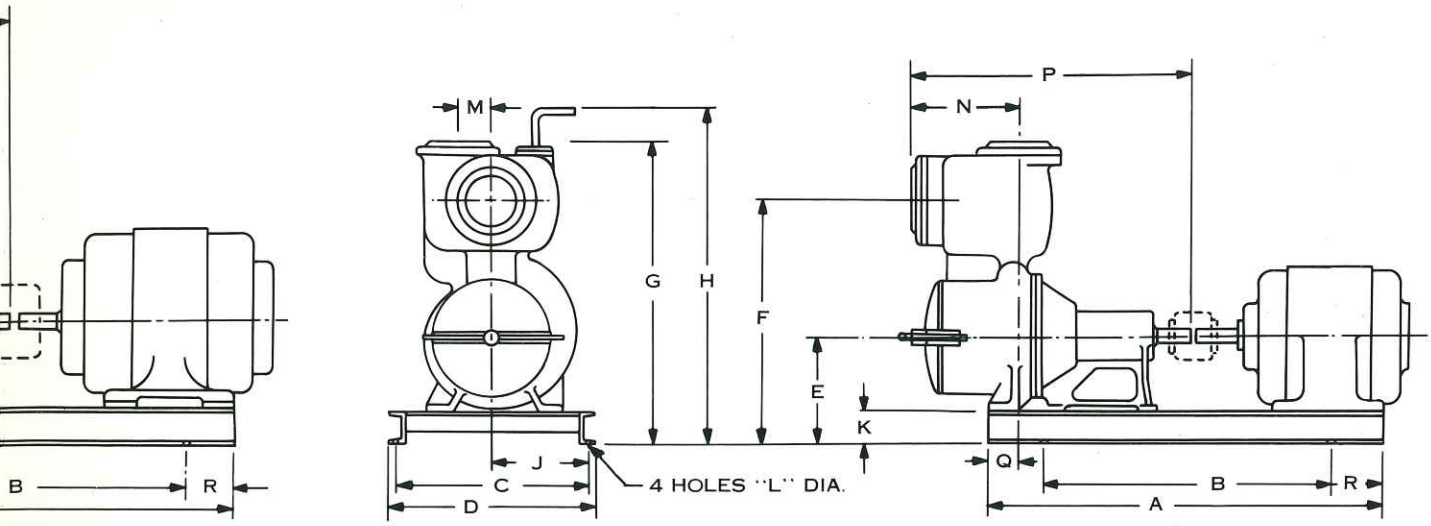


MODEL 81¼A-B

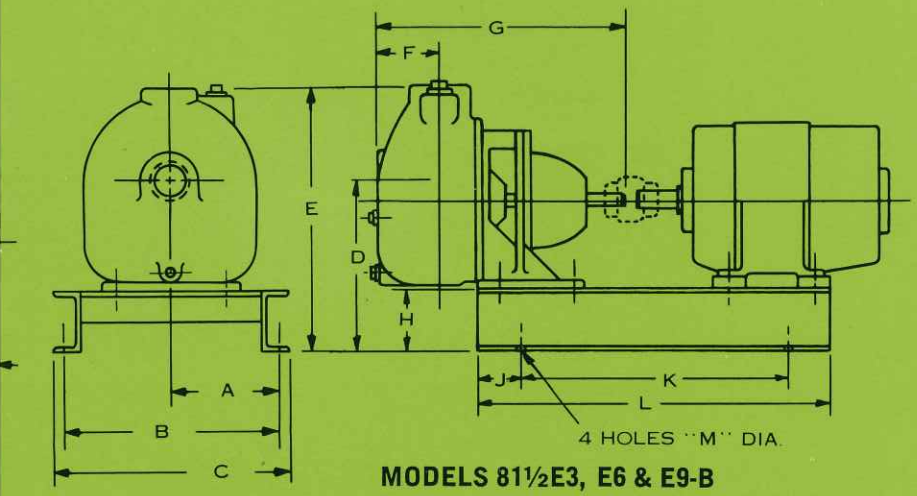




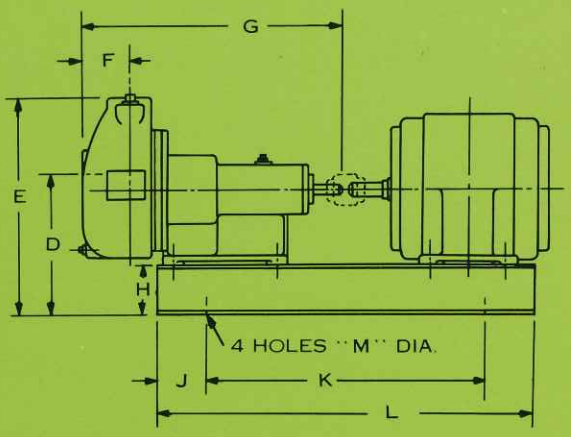
MODEL 93A-B



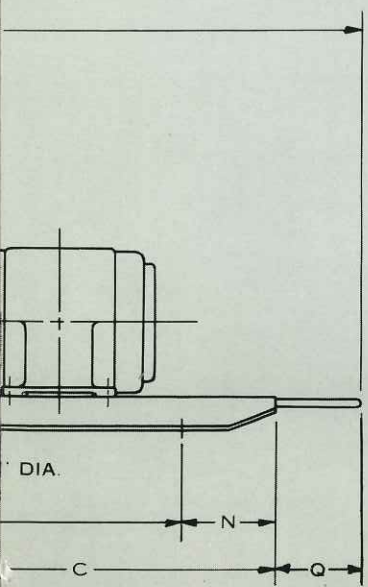
MODEL 16A-B

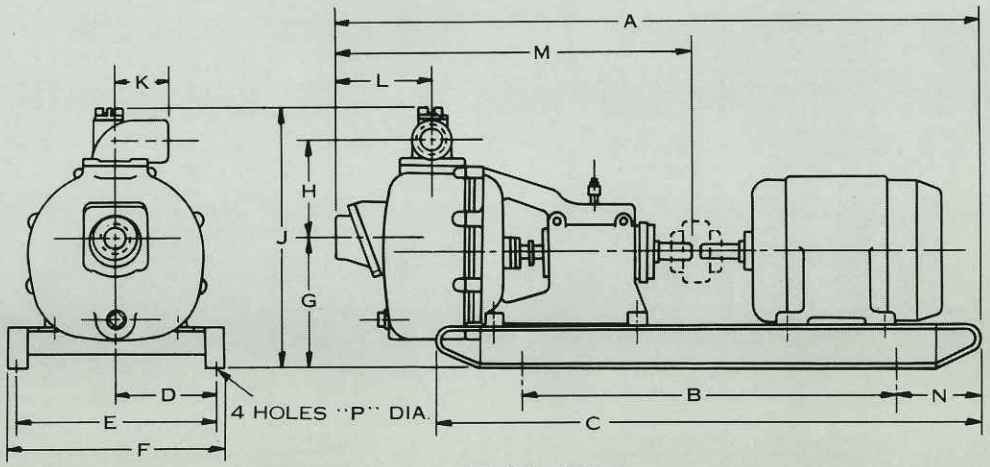


MODELS 81½E3, E6 & E9-B
81½D3 & D6-B



MODELS 81½E4, E7 & E10-B

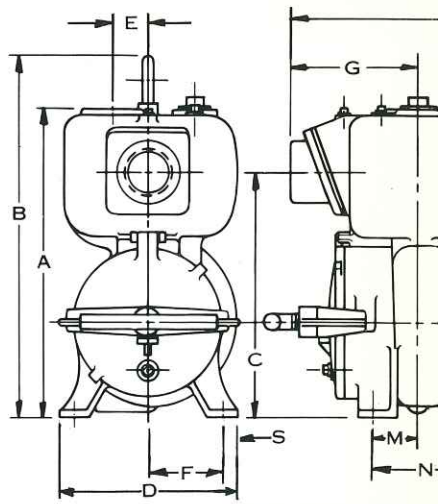




MODEL 92B-B

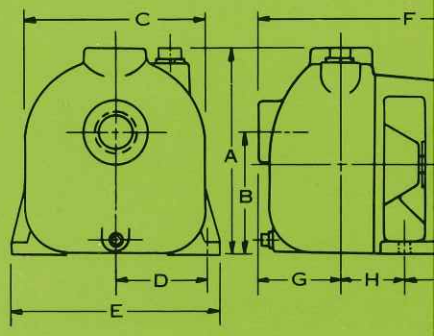
DIMENSIONS — BASIC PUMP

MODEL	BASE	FRAME	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
FLEXIBLE COUPLED PUMP																			
12B	11022-A	182 & 184	31¼	23¼	13¾	14 13/16	7½	15	18 3/16	20⅞	6⅞	3	7/16	1 13/16	6½	22 7/16	3 5/16	4	
12B	11022-C	213 & 215	34¼	26¼	13¾	14 13/16	8¼	15¾	18 15/16	21⅝	6⅞	3	7/16	1 13/16	6½	22 7/16	3 5/16	4	
12B	11022-F	254U & 256U	38⅞	30⅞	15½	16¾	9¾	17¼	20 7/16	23⅛	7¾	4	9/16	1 13/16	6½	22 7/16	3 5/16	4	
12B	11022-G	F66	31	23	13¾	14 13/16	7¾	15¼	18 7/16	21⅛	6⅞	3	7/16	1 13/16	6½	22 7/16	3 5/16	4	
12B	11022-H	R56	28¼	20¼	13¾	14 13/16	7¾	15¼	18 7/16	21⅛	6⅞	3	7/16	1 13/16	6½	22 7/16	3 5/16	4	
13A	11023-A	182 & 184	31¼	23¼	15	17	7½	17 13/16	22 1/16	24 9/16	7½	3	9/16	3⅛	9	26 1/16	2 5/16	4	
13A	11023-C	213 & 215	34¼	26¼	16¾	17 13/16	8¼	18 9/16	22 13/16	25 5/16	8⅜	3	7/16	3⅛	9	26 1/16	2 5/16	4	
13A	11023-F	254U & 256U	39	31	15	16⅛	9½	19 13/16	24 1/16	26 9/16	7½	4	9/16	3⅛	9	26 1/16	2 5/16	4	
13A	11023-H	284U & 286U	41⅝	33⅜	18	19½	8⅝	18 15/16	23 1/16	25 11/16	9	3	9/16	3⅛	9	26 1/16	2 5/16	4	
14A	11024-B	213 & 215	39⅛	31⅛	18¾	19⅞	10¼	21 15/16	28 5/32	31 21/32	9⅜	4	9/16	2⅜	11⅛	32 5/16	2⅞	4	
14A	11024-F	254U & 256U	43⅝	35⅜	16½	19½	11	22 11/16	28 29/32	32 13/32	8¼	4	9/16	2⅜	11⅛	32 5/16	2⅞	4	
14A	11024-H	284U & 286U	46½	38½	17	18⅛	12	23 11/16	29 29/32	33 13/32	8½	4	9/16	2⅜	11⅛	32 5/16	2⅞	4	
16A	11026-A	254U & 256U	46⅛	34⅛	21¼	22½	13	29½	37 3/16	40⅜	10⅝	5	11/16	3⅝	13 15/16	36¾	3⅝	6	
16A	11026-D	284U & 286U	48¾	36¾	21¼	22½	13	29½	37 3/16	40⅜	10⅝	5	11/16	3⅝	13 15/16	36¾	3⅝	6	
16A	11026-F	324U & 326U	51	39	21¼	22½	13	29½	37 3/16	40⅜	10⅝	5	11/16	3⅝	13 15/16	36¾	3⅝	6	
BASIC PUMP																			
12B-B			15 7/16	18⅛	12¼	9⅛	1 13/16	3 13/16	6½	22 7/16	¼x2	2¼	4¾	2 5/16	5½	8¾	1	3½	¾
13A2 & 4-B			20 1/16	22 9/16	15 13/16	11⅞	3⅛	5⅝	9	26 1/16	¼x2¾	3½	5½	1 5/16	5⅛	9	1¼	4¼	⅝
13A6 & 7-B			21⅜	22 9/16	15 13/16	11⅞	3⅛	5⅝	9	26 1/16	¼x2¾	3½	5½	1 5/16	5⅛	9	1¼	4¼	⅝
13A9 & 10-B			21⅜	22 9/16	15 13/16	11⅞	3⅛	5⅝	9 1/16	26⅛	¼x2¾	3½	5½	1 5/16	5⅛	9	1¼	4¼	⅝
14A2, 4, 6 & 7-B			24½	28	18 3/32	12¼	2⅛	5⅛	11⅛	32 5/16	⅜x3¾	4⅞	8	1⅜	5 1/16	11	1½	6½	⅝
14A9 & 10-B			24½	28	18 7/32	12¼	2⅜	5⅜	11¼	32 7/16	⅜x3¾	4⅞	8	1⅜	5 1/16	11	1½	6½	⅝
16A-B			33 3/16	25½	7	15¾	3⅝	13 15/16	36¾	36⅜	⅜x3¾	5 1/16	9	2⅝	5 15/16	13	1¾	6½	⅛



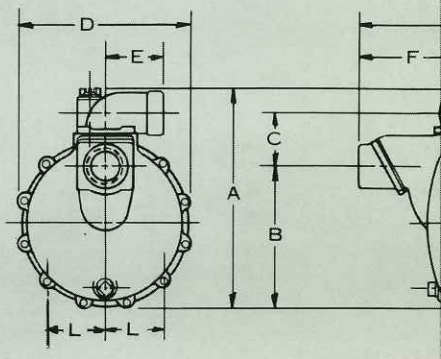
MODELS 12B, 13

MODEL	BASE	FRAME	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
FLEXIBLE COUPLED PUMP																	
81¼A-B	6913 & 6913A	48 & 56	4⅞	9¾	10½	5⅞	9⅛	3 3/16	9⅜	1⅛	2	12	16	7/16			
81½E 3, 6, 9-B	12046	T143	5⅜	10¾	11 13/16	8⅛	12⅝	2⅞	11⅜	3	2	12 1/16	16 1/16	7/16			
&	6921 & 6921A	56	4⅛	8¼	9	6¼	10¾	2⅞	11⅛	1⅛	2	15	19	7/16			
81½D 3, 6-B	9757	182 & 184	5½	11	12	7⅛	11⅜	2⅞	11⅜	2	2	17⅜	21⅝	7/16			
81½E 4, 7, 10-B	12045	182 & 184	5⅜	10¾	11 13/16	8½	13	2⅞	15 11/16	3	3	16 15/16	22 15/16	7/16			
BASIC PUMP																	
81¼A-B			8	4¾	6⅞	3½	8	9⅛	3 3/16	2 7/16	3	½	½	3½	⅝	1⅝	3/16 x ⅞
81½E 3, 6, 9-B & 81½D 3, 6-B			9⅝	5⅛	8½	3		11⅜	2⅞	5 11/16	3½	2 3/16	½	4⅛	1 23/32	3/16 x ⅞	7¼
81½E 4, 7, 10-B			10	5½	8½	2¾	2⅞	15 11/16	5½	6¼	3 15/16	4½	⅝	3/16 x ⅞	1¾	½	6¾

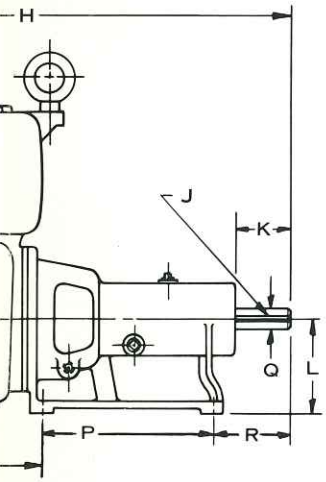


MODEL 81¼A-B

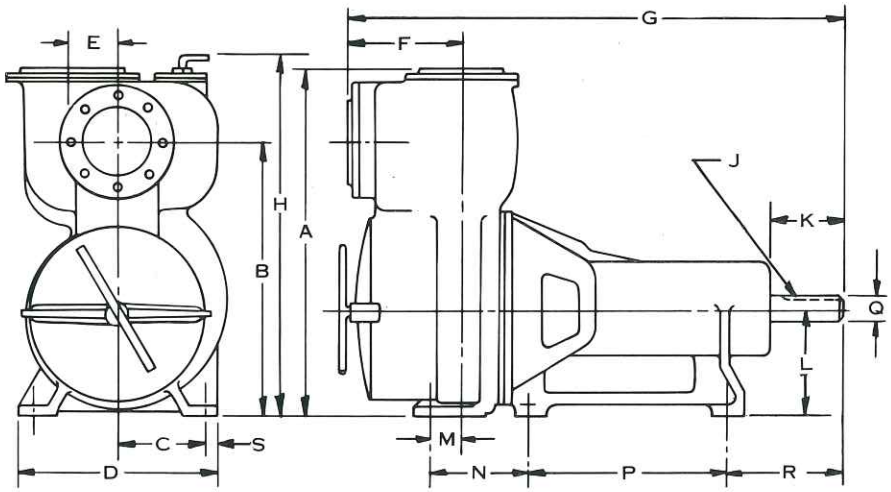
MODEL	BASE	FRAME	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
FLEXIBLE COUPLED PUMP																	
92B	6653	184	45 3/16	25⅝	37⅝	7⅛	14¾	16	9½	7⅛	19 1/16	4	7⅛	26 5/16	6	7/16	
92B	6661	224	47 3/16	27⅝	39⅝	7⅛	14¾	16	9½	7⅛	19 1/16	4	7⅛	26 5/16	6	7/16	
92B	6661	225	47 3/16	27⅝	39⅝	7⅛	14¾	16	9½	7⅛	19 1/16	4	7⅛	26 5/16	6	7/16	
92B	6661-A	213	47 3/16	27⅝	39⅝	7⅛	14¾	16	9½	7⅛	19 1/16	4	7⅛	26 5/16	6	7/16	
92B	6661-A	215	47 3/16	27⅝	39⅝	7⅛	14¾	16	9½	7⅛	19 1/16	4	7⅛	26 5/16	6	7/16	
92B	6661-C	254	49 3/16	29⅝	41⅝	7⅛	14¾	16	9½	7⅛	19 1/16	4	7⅛	26 5/16	6	7/16	
93A	2705	254U & 256U	71 1/16	32	48	8¼	16½	19⅛	14¾	4⅜	21⅞	5½	9 15/16	32¾	8	9/16	7
BASIC PUMP																	
92B-B			17	7 7/16	7⅛	12 15/16	4	7⅛	26 5/16	4 7/16	10⅝	4⅛	4½	5½	1¼	2½	¼ x 1 13/16
93A-B			20⅜	13¾	4⅞	16½	5½	9 15/16	32¾	7⅛	10⅝	5 1/16	5	6¼	1¼	2 5/16	¼ x 2



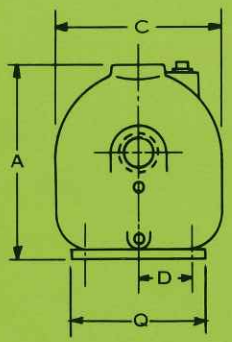
MODEL 93A-

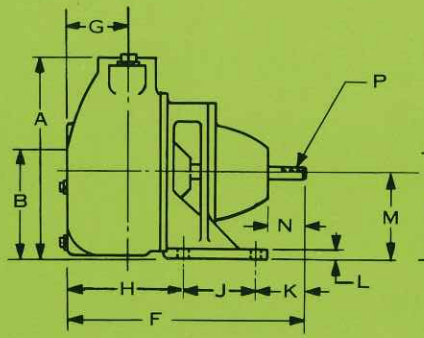


A & 14A

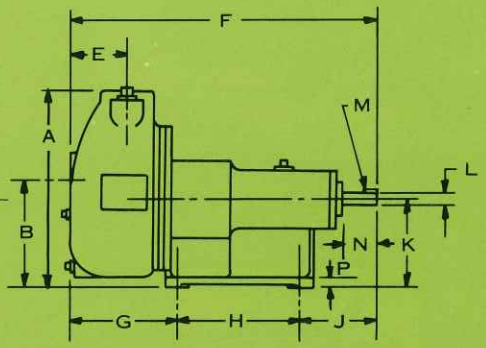


MODEL 16A-B

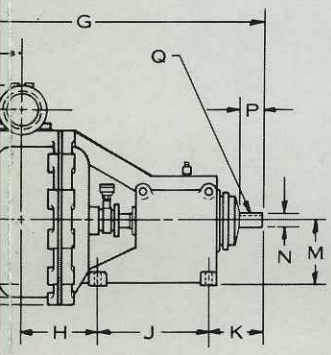




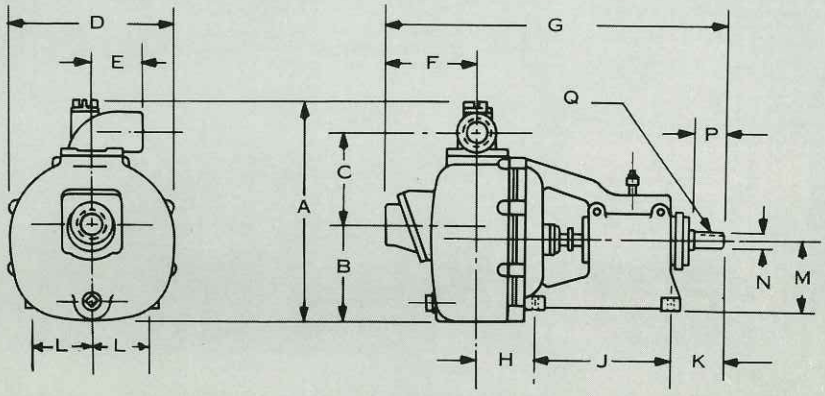
MODELS 81½E3, E6 & E9-B
81½D3 & D6-B



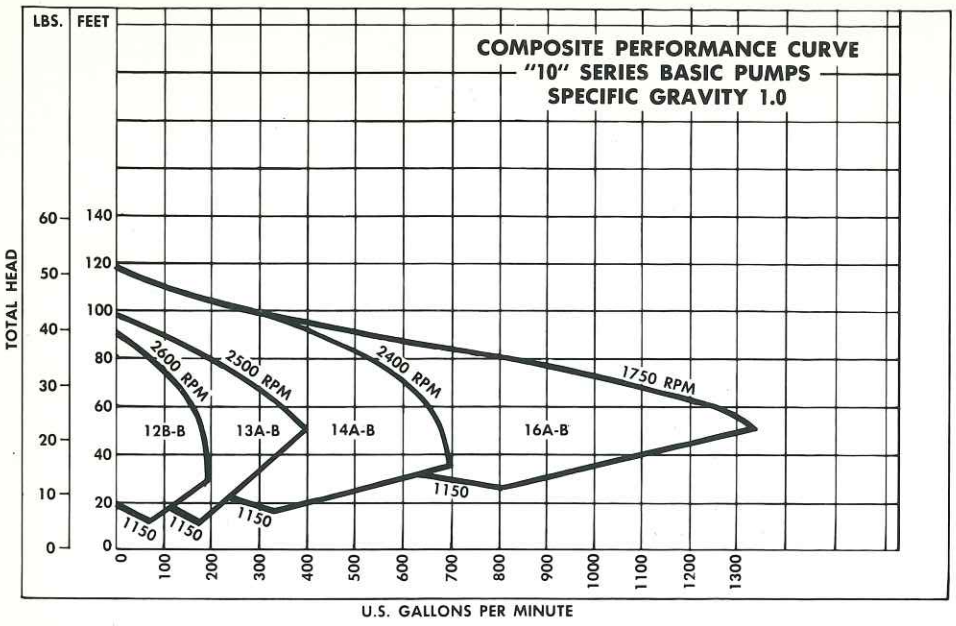
MODELS 81½E4, E7 & E10-B



-B



MODEL 92B-B

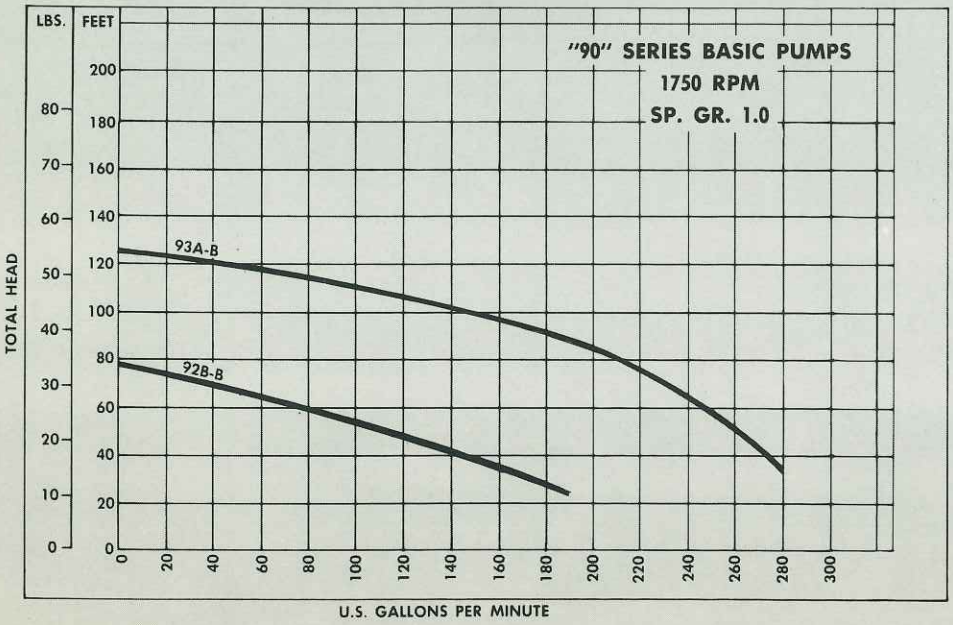


PERFORMANCE:

This applies to all charts

Performance as shown has been obtained using clear water (sp. gr. 1.0). Suction and discharge pipes same diameter as size of pump suction. Viscosity and density of fluid pumped affects performance, particularly priming ability. Other factors affecting performance include discharge head conditions and suction side horizontal runs. Our Engineering Department welcomes inquiry on specific application questions.

Complete specification data and performance details in Section 50 of Gorman-Rupp Catalog.



"10" SERIES PERFORMANCE CHART

Pump Model	Seal	Size Solids	Max. (1) Operating Pressure	Max. (2) Temp. °F	Max. Flex & V-Belt		Weights	
					Speed	H.P.	Net	Shipping
12B2	G-R	1¼"	60#	110°F	2600	5	113	136
12B4	Packing	1¼"	60#	180°F	2600	5	113	136
12B6	Type 9	1¼"	60#	212°F	2600	5	134	157
12B7	Packing	1¼"	60#	180°F	2600	5	134	157
12B9	Type 9	1¼"	60#	212°F	2600	5	122	145
12B10	Packing	1¼"	60#	180°F	2600	5	122	145
13A2	G-R	1½"	64#	110°F	2500	10	179	196
13A4	Packing	1½"	64#	180°F	2500	10	179	196
13A6	Type 9	1½"	64#	212°F	2500	10	237	252
13A7	Packing	1½"	64#	180°F	2500	10	237	252
13A9	Type 9	1½"	64#	212°F	2500	10	195	210
13A10	Packing	1½"	64#	180°F	2500	10	195	210
14A2	G-R	2"	79#	110°F	2400	20	270	307
14A4	Packing	2"	79#	180°F	2400	20	270	307
14A6	Type 9	2"	79#	212°F	2100	15	302	339
14A7	Packing	2"	79#	180°F	2100	15	302	339
14A9	Type 9	2"	79#	212°F	2100	15	274	311
14A10	Packing	2"	79#	180°F	2100	15	274	311
16A2	G-R	2½"	78#	110°F	1750	30	650	702
16A4	Packing	2½"	78#	180°F	1750	30	648	700
16A6	Type 9	2½"	78#	212°F	1500	20	720	780
16A7	Packing	2½"	78#	180°F	1500	20	720	780
16A9	Type 9	2½"	78#	212°F	1500	20	651	711
16A10	Packing	2½"	78#	180°F	1500	20	651	711

"80" SERIES PERFORMANCE CHART

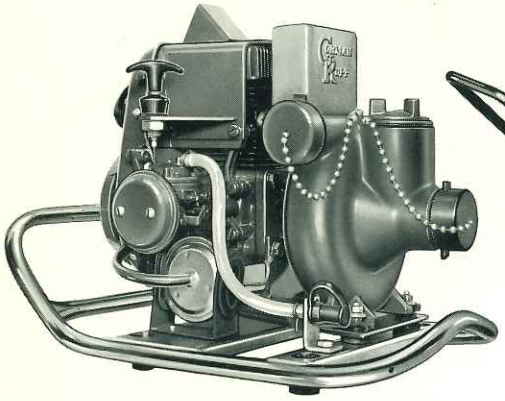
Pump Model	Seal	Size Solids	Max. (1) Operating Pressure	Max. (2) Temp. °F	Max. V-Belt		Weights	
					Speed	H.P.	Net	Shipping
81¼A3	Type 6	¼"	23#	212°F	3450	.5	26	29
81¼A6	Type 6	¼"	23#	212°F	3450	.5	30	33
81½D3	Type 6	¼"	33#	212°F	3450	1	36	40
81½D6	Type 6	¼"	33#	212°F	3450	1	42	46
81½E3	Type 6	¼"	47#	212°F	3450	1.5	59	67
81½E4	Packing	¼"	47#	180°F	3450	1.5	56	64
81½E6	Type 6	¼"	47#	212°F	3450	1.5	71	80
81½E7	Packing	¼"	47#	180°F	3450	1.5	69	77
81½E9	Type 9	¼"	47#	212°F	3450	1.5	70	79
81½E10	Packing	¼"	47#	180°F	3450	1.5	68	76

(1) It is recommended that Gorman-Rupp be contacted for approval on conditions above those noted.

(2) If pump application involves continuous operation at temperatures above 140°F., advise factory at time of order.

"90" SERIES PERFORMANCE CHART

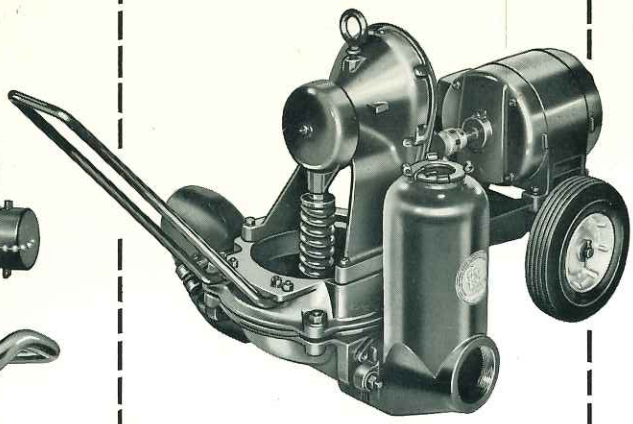
Pump Model	Seal	Size Solids	Max. (1) Operating Pressure	Max. (2) Temp. °F	Max. V-Belt		Weights	
					Speed	H.P.	Net	Shipping
92B3	Type 1	5/16"	51#	212°F	1750	5	161	191
92B4	Packing	5/16"	51#	180°F	1750	5	161	191
92B6	Type 1	5/16"	51#	212°F	1750	5	160	190
92B7	Packing	5/16"	51#	180°F	1750	5	160	190
92B9	Type 9	5/16"	51#	212°F	1750	5	155	185
92B10	Packing	5/16"	51#	180°F	1750	5	155	185
93A3	Type 2	½"	83#	212°F	1750	10	238	272
93A4	Packing	½"	83#	180°F	1750	10	238	272
93A6	Type 2	½"	83#	212°F	1750	10	267	301
93A7	Packing	½"	83#	180°F	1750	10	267	301
93A9	Type 9	½"	83#	212°F	1750	10	257	290
93A10	Packing	½"	83#	180°F	1750	10	257	290



PORTABLE FIREFIGHTING PUMPS

Numerous models available. One and two man carry. Pumps may be used for water supply or fighting fires directly.

More than 140 distributors throughout the United States, Canada and Puerto Rico handle Gorman-Rupp pumps. Each is qualified to give expert counsel on application of product and design of systems. They stand behind the products they sell with complete parts inventory for expedient service.



DIAPHRAGM PUMPS

Gasoline engine electric motor drive or basic units available in sizes 2″ or 3″ x 3″ and 3″ or 4″ x 4″.

For quick reference to our distributor in your area, consult yellow pages of your telephone directory. Gorman-Rupp distributors are listed under major heading of PUMPS, then under Gorman-Rupp with appropriate subheads.

STAND-BY ENGINE DRIVEN

Available in 2″, 3″, 4″, 6″ sizes for stand-by in the event of power failure or for general utility use. Removable endplate. Replaceable wearplate.

Distributors of Gorman-Rupp pumps may be easily identified by the brilliantly illuminated sign above. For dependable pumping and efficient service, see the Gorman-Rupp Distributor nearest you.

GORMAN-RUPP • Mansfield, Ohio • St. Thomas, Ontario

Form No. 4-IP-11 Rev.

Litho in U.S.A.